WHAT IS CLAIMED IS:

1. An aerosol generator comprising:

a vibratable member having a front, a rear, an outer periphery and a plurality of apertures extending between the front and the rear;

a support element disposed about the outer periphery of the vibratable member;

a vibratable element coupled to the support element, the vibratable element being configured to vibrate the vibratable member at ultrasonic frequencies; and

an isolating structure coupled to the support element that is configured to couple the aerosol generator to a support structure, wherein the isolating structure has a vibrational impedance that is sufficient to substantially vibrationally isolate the aerosol generator from the support structure.

2. An aerosol generator as in claim 1, wherein the isolating structure and the support element are integrally formed together.

3. An aerosol generator as in claim 1, wherein the isolating structure comprises a plurality of arms extending from the support element.

4. An aerosol generator as in claim 3, wherein the arms have a contoured shape.

5. An aerosol generator as in claim 1, wherein the isolating structure comprises at least one elastomeric member.

6. An aerosol generator as in claim 5, wherein the isolating structure comprises a plurality of discrete elastomeric members extending from the support element.

7. An aerosol generator as in claim 1, wherein the isolating member is configured such that the ratio of forces transmitted to the support structure to forces at an outer edge of the support element is less than about 30%.

8. An aerosol generator as in claim 7, wherein the ratio is less than about 20%.

9. An aerosol generator as in claim 1, wherein the isolating structure has resonant frequencies that are outside of an operating frequency range of the aerosol generator.

10. An aerosol generator as in claim 9, wherein the operating frequency range is about 50 kHz to about 250 kHz.

11. An aerosol generator as in claim 1, wherein the vibratable member has a center portion containing the apertures, wherein the center portion is dome shaped in geometry, and wherein the apertures taper from the rear to the front.

12. An aerosol generator as in claim 1, wherein the support element comprises a disc member having a central aperture across which the vibratable member is positioned, and wherein the isolating structure comprises an annular gasket disposed about the disc member.

13. An aerosol generator as in claim 12, wherein the disc member has a circular outer periphery with a plurality of tabs, and wherein the gasket is inserted between the tabs.

14. An aerosolization device comprising:

a housing; and

an aerosol generator disposed within the housing, the aerosol generator comprising a vibratable member having a front, a rear, an outer periphery and a plurality of apertures extending between the front and the rear, a support element disposed about the outer periphery of the vibratable member, a vibratable element coupled to the support element, the vibratable element being configured to vibrate the vibratable member at ultrasonic frequencies, an isolating structure coupled to the support element, and operably connected to the housing, wherein the isolating structure has a vibrational impedance that is sufficient to substantially vibrationally isolate the aerosol generator from the housing.

15. A device as in claim 14, wherein the isolating structure and the support element are integrally formed together.

16. A device as in claim 14, wherein the isolating structure comprises a plurality of arms extending from the support element.

17. A device as in claim 16, wherein the arms have a contoured shape.

18. A device as in claim 14, wherein the isolating structure comprises at least one elastomeric member.

19. A device as in claim 18, wherein the isolating structure comprises a plurality of discrete elastomeric members extending from the support element.

20. A device as in claim 14, wherein the isolating member is configured such that the ratio of forces transmitted to the support element to forces at an outer edge of the support element is less than about 30%.

21. A device as in claim 20, wherein the ratio is less than about 10%.

22. A device as in claim 14, wherein the isolating structure has resonant frequencies that are outside of an operating frequency range of the aerosol generator.

23. A device as in claim 22, wherein the operating frequency range is about 50 kHz to about 250 kHz.

24. A device as in claim 14, wherein the vibratable member has a center portion containing the apertures, wherein the center portion is dome shaped in geometry, and wherein the apertures taper from the rear to the front.

25. An aerosol generator as in claim 14, wherein the support element comprises a disc member having a central aperture across which the vibratable member is positioned, and wherein the isolating structure comprises an annular gasket disposed about the disc member.

26. An aerosol generator as in claim 25, wherein the disc member has a circular outer periphery with a plurality of tabs, and wherein the gasket is inserted between the tabs.

27. A method for aerosolizing a liquid, the method comprising:

providing an aerosol generator comprising a vibratable member having a front, a rear, and a plurality of apertures extending between the front and the rear, and a vibratable element to vibrate the vibratable member;

supplying a liquid to the rear of the vibratable member; and

vibrating the vibratable member with the vibratable element to eject liquid droplets through the apertures while substantially vibrationally isolating the aerosol generator with an isolating structure.

28. A method as in claim 27, further comprising vibrating the vibratable member at a frequency that is different than a resonant frequency of the isolating structure, and wherein the vibratable member is vibrated at a frequency in the range from about 50 kHz to about 250 kHz.

29. A method as in claim 27, wherein the isolating structure comprises a plurality of arms extending from the aerosol generator, wherein the isolating structure is configured such that the ratio of forces transmitted to a support structure to forces at an outer edge of the aerosol generator is less than about 30%.

30. A device as in claim 27, wherein the isolating structure comprises one or more elastomeric members extending from the aerosol generator, wherein the elastomeric member has a mechanical vibrational impedance to substantially vibrationally isolate the aerosol generator.

31. A method for forming an aerosol generator, the method comprising:

stamping an isolating structure from a sheet of material;

coupling a vibratable member to the isolating structure, the vibratable member having a plurality of apertures; and

coupling a vibratable element to the vibratable member or the isolating structure, the vibratable element being vibratable at ultrasonic frequencies;

wherein the isolating structure has a mechanical vibrational impedance that is sufficient to substantially vibrationally isolate the aerosol generator.

32. A method as in claim 31, wherein the isolating structure comprises an annular member and a plurality of arms extending from the annular member.

33. A method as in claim 32, further comprising bending or crimping the arms after the stamping step.

34. A method for forming an aerosol generator, the method comprising:

providing a support element having an outer periphery;

forming a plurality of tabs in the outer periphery of the support element;

coupling a vibratable member to the support element, the vibratable member having a plurality of apertures; and

coupling a vibratable element to the support element or the vibratable member, the vibratable element being vibratable at ultrasonic frequencies;

coupling a gasket about the support element, with the gasket being received into the tabs, wherein the gasket has a mechanical vibrational impedance that is sufficient to substantially vibrationally isolate the aerosol generator.

35. A method as in claim 34, wherein the tabs are formed by making a pair of cuts in the support element and bending the material between the cuts away from the rest of the support element.